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# Natural News

A Publication of The U.S. Environmental Protection Agency, Region 8 Ecosystem Protection Program

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## In this Issue:



***The General Iron Works Site will use the City of Englewood's Brownfields Revolving Loan Fund to conduct an environmental investigation that will ultimately lead to redevelopment.***

## *The NEW Brownfields*

**~David Ostrander, EPA Region 8**

Maybe you have heard about brownfields, maybe not. Brownfields started as one small grant to a community in Ohio to help them find a solution to abandoned industrial properties that were a blight on their community. From that, it has grown into a significant initiative within state and local governments, EPA and other federal agencies. First and foremost, brownfields was and is a concept, that real or perceived environmental contamination keeps developers and lenders from redeveloping old industrial sites. But don't let this concept constrain your views on what brownfields is and is not, as you will read later.

In January of this year, President Bush signed into law the new Brownfields Revitalization and Environmental Restoration Act. EPA now has an official brownfields program, and funding authorization to go with it. As with all legislation, there are many complexities related to this act, but there are a few key things to know:

- The law provides for grants to states, tribes,local governments and other governmental entities for the assessment of brownfields sites and grants for establishing cleanup revolving loan funds.
- NEW with this law is the authority to award cleanup grants to non-profits.
- Many new types of sites are eligible for assistance, including some petroleum contaminated sites, and sometimes sites under other regulatory authorities, such as the Resource Conservation and Recovery Act (RCRA).
- Mine scarred lands are specifically included as eligible brownfields sites.
- Grant funds can be used to assess/ monitor the health impacts of children, pregnant women and other sensitive populations.
- The creation of, preservation of, or addition to a park, a greenway, undeveloped property, recreational property, or other property used for nonprofit purposes is a consideration in selecting projects-*brownfields are not just urban industrial sites!*

EPA sees many new opportunities with this brownfields law to assist more communities, especially rural areas and mining impacted lands. We encourage you to contact the regional office if you have any questions about brownfields and how

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this program may apply to your environmental problem. For more information, please contact **Karen Reed**, Brownfields Coordinator, at (303)312-6019 or ***reed.karen@epa.gov*** or visit our web page at **http://www.epa.gov/region8/land_waste/bfhome.html**


## *Watershed Initiative: Encouraging Successful Watershed Partnerships to Protect and Restore Water Resources*

**~Contributed by Stacey Eriksen, EPA Region 8**

Americans depend on clean water for drinking, clean beaches for swimming, and a healthy environment to support fish and other wildlife. The good news is that many communities around the country have united to protect their watersheds, using approaches that make sense for their local area. Those efforts have yielded inspiring results–cleaner beaches, restored fish and wildlife populations and waterways that attract visitors, businesses and families. EPA has asked Congress to invest $20 million in grants for community-based watershed approaches in 2003. These funds will support efforts in up to 20 watersheds and technical assistance for other communities nationwide.

Experience shows that partnerships for protection work. The strongest candidate communities will involve a broad spectrum of affected interests in achieving clean and healthy watersheds, such as representatives from private landowners, public interest groups, industry, academic institutions, concerned citizens and local government. The initiative will focus on watershed resources that provide highly valuable services to support human health, economic stability, ecosystem integrity, recreational opportunity, natural or cultural significance, or other important services, and will be able to show environmental results in a short time.

The Governors are being invited to help design the details of the program, and EPA plans for the states to take a leadership role in nominating candidate watersheds. This ensures that environmental objectives are well integrated with those for economic stability and other social goals. EPA is seeking the views of Congress, States, local governments, agricultural groups, environmental groups, industry, and watershed practitioners in developing the details of how this initiative will be designed and implemented. Four listening sessions were held in Washington DC (May 14,15, 22, 29). More information is available at **http://www.epa.gov/owow/watershed/initiativefs.html** You are invited to comment on this budget proposal by reviewing it in the Federal Register at **http://www.epa.gov/fedrgstr/EPA-WATER/2002/May/Day-23/w12968.htm**

For more information please contact **Karen Hamilton** at (303) 312-6236 or **hamilton.karen@epa.gov**

## *Watershed Management: DATA! We need DATA!*

**~Karen Hamilton, EPA Region 8**

*This is the fourth article in a series describing how the Clean Water Act is linked to watershed planning and implementation. The previous articles described the Clean Water Act components that are analogous to a generic watershed plan, water quality standards, and TMDLs (total maximum daily loads).*

Water quality data and what it means is one of the very first things asked for from people who are working to understand their watershed. Collecting and managing water quality data and then turning it into information is a key component to any watershed planning and implementation process. When collection is designed and carried out well, data and the information developed from it can:

- Let you know what you are starting with.
- Tell you how close to your goals (such as water quality standards) you are;.
- Explain where improvements need to be made, how much and for what reason (such as calculating a total maximum daily load allocation).
- Evaluate how well your work to clean up the watershed is going.
- Show what needs to be protected from activities that could threaten functions of water bodies.
- Recommend what changes to your actions need to be taken to improve results.
- Display trends over time.

One good place to start looking for data and information is a state's 305(b) report. HUH???? What is THAT???? Section 305(b) of the Clean Water Act requires the state water quality agency to produce a report that describes the water quality of their waters every two years. This is the state "305(b) report." This report describes the water quality of rivers, lakes, estuaries, and reservoirs in terms of the uses that the quality of the water in the state is supposed to support. Examples of designated uses that water bodies can support (given good water quality)

include fishing, swimming, drinking water, and agriculture. These designated uses are a part of the water quality standards set for a water body (see Natural News Spring 2001). The report describes whether those uses are being supported by the water quality. Below are the web sites to the EPA Region 8 state 305(b) reports or information on how to obtain water quality data. Many state water offices have different divisions for groundwater and surface water so you may have to look in two places to get information on both.
**http://www.cdphe.state.co.us/op/wqcc/waterstatus2002/305(b)tableofcontents.pdf**

From these state reports, EPA then produces the National Water Quality Inventory Report to Congress (305(b) report). This is the main way that EPA uses to inform Congress and the public about general water quality conditions in the United States. This document characterizes our water quality, identifies widespread water quality problems of national significance, and describes various programs implemented to restore and protect our waters. You can access it at :
**http://www.epa.gov/305b**

Each state may have slightly different survey methods and water quality standards. Therefore, comparisons of water quality between states may be inappropriate. Combining many states' reports into a Regional summary allows EPA to determine the extent of differences between each state's monitoring program. The EPA Regional summary is also used to determine Regional water quality problems, new and/or beneficial techniques for monitoring and assessing water quality, and interstate water quality issues.

The 305(b) reports are excellent places to begin to learn about your state's water quality monitoring and assessment program. In these reports you will learn what the state's approach to understanding state water bodies is and what the main components of the program are. You will also find out what the recent advances, issues, and developments in monitoring and assessment are. You can also obtain a big picture view of key information about your watershed. These reports link monitoring data, standards and the list of impaired water bodies (303(d) lists; see Natural News spring 2001 and winter 2002). At the website of some states, you may be able to obtain some monitoring data or generate maps of monitoring sites. Colorado is beginning to make its data available in a spatial format, for example. For raw data, have a look at EPA's STORET web site:
**http://www.epa.gov/storet**

You will likely find that the groundwater and wetlands water quality components are weak in many overall state monitoring programs. However, most states receive

***Water quality monitoring (305b) data was used to determine sources of impairment affecting recreation on the South Platte River in Denver.***

insufficient funding to conduct in-depth, comprehensive monitoring programs continuously throughout the state. They may rely on rotating through the major water basins on a multi-year cycle for more in-depth monitoring while maintaining some lighter level of monitoring state-wide. Most states bolster their monitoring programs by coordinating their needs with monitoring activities of other water programs (e.g., nonpoint source projects), agencies and organizations, but this is a laborious task. Data must be used very carefully with a full understanding of its original purposes and limitations. Consequently, some organizations may be reluctant to release data if they are concerned data will be used incorrectly. Conversely, organizations may be reluctant to use data that doesn't have a complete description of how it was collected and analyzed (this description is called metadata).

Watershed groups can provide data that is valuable to the state monitoring program when the data arises from well-designed and conducted volunteer efforts that have approved quality assurance plans. With technical assistance from EPA, the state, US Geological Survey, the state volunteer monitoring program, or other organizations, watershed groups are capable of developing rigorous scientific data that can be used for the most scrutinized assessments such as total maximum daily load allocations, water quality standards changes, and the 305(b) reports.

For information about your state's 305(b) report:
CO: **Sarah Johnson** (303) 692-3609.
MT: **Bob Barry** (406)444-5342.
ND: **Mike Ell** (701) 328-5214.
SD: **Trish Kindt** (605) 773-3351.
UT: **Tom Toole** (801)538-6859.
WY: **Mark Conrad** (307)777-5802.

## *EPA Region 8 2002 Consolidated Funding Process (CFP) Update*

**~Pam Dougherty, EPA Region 8**

This is the second year that the Region 8 Ecosystems Protection Program and Water Program have used a redesigned competitive funding process which offers "one-stop-shopping" to applicants by sending out one Request for Proposal with funding available through the following four grant programs:

- *Regional Geographic Initiative (RGI) Multi-media Funding;*
- *Wetlands Protection Project Grants;*
- *Water Quality Project Grants;*
- *Total Maximum Daily Load (TMDL) Program Grants.*

This effort was in response to numerous requests from our customers to simplify and streamline our grants process. The fiscal year (FY) 2002 CFP Request for Proposal went out in October, and in December we received 143 proposals, totaling $9.6 million in requests.

Following several months of extensive review and evaluation, by staff from three Region 8 Offices, financial assistance totaling $3,100,000.00 will be awarded to 78 (out of the 143) proposals. Funded projects support restoration of impacted watersheds, protection of pristine or high value watersheds or ecosystems, and water quality improvement. We are currently in the middle of the Grants Application process and are scheduled to make the majority of awards by June 15th, 2002.

For additional information regarding this year's process or updates on next year's process, please visit our website at **http://www.epa.gov/region8/community_resources/ecoprotection/newgrant.html**

For more information, please contact **Pam Dougherty**, Program Coordinator at (303) 312-6012 or **dougherty.pam@epa.gov**


## *EPA Guidelines for Management of Onsite/ Decentralized Wastewater Systems*

**~Rich Muza, EPA Region 8**

In 2002 EPA will be publishing the "Guidelines for Management of Onsite/Decentralized Wastewater Systems". An accompanying management handbook and other resources will follow to assist states and communities in the implementation of management programs for onsite/decentralized wastewater systems. The performance of onsite and other decentralized wastewater systems is a national issue of concern. Onsite/decentralized wastewater treatment systems treat and dispose of relatively small volumes of sewage from homes and businesses that are not connected to a centralized wastewater treatment plant. They include individual onsite septic systems, cluster systems, and alternative wastewater technologies. About one-fourth of the total population in the U.S. is served by decentralized wastewater treatment systems. About one-third of new construction employs this type of sewage treatment. In areas of the rural West, all new home development employs decentralized wastewater treatment systems.

EPA estimates that anywhere from 10 to 25 percent of onsite systems are failing annually. Clean Water Act goals are not being met, partly because of improperly operating onsite wastewater treatment systems. Nationally, states have reported in their lists of polluted waters that designated uses are not being met for numerous waterbodies due to pathogens and/or nutrients. Onsite systems are often significant contributors of pathogens and nutrients. In their 303(b) water-quality reports, also evaluated nationally, state agencies report that failing onsite wastewater treatment systems are the third most common source of ground-water contamination.

In the 1997 "Response to Congress on Use of Decentralized Wastewater Treatment Systems", EPA determined that with the technology now available, adequately managed decentralized systems can protect public health and the environment as well as provide long-term solutions for the nation's wastewater needs. The report also cited five major barriers to increasing the use of decentralized wastewater treatment systems, including the lack of adequate management (ie., site selection, design, installation, and operation and maintenance).

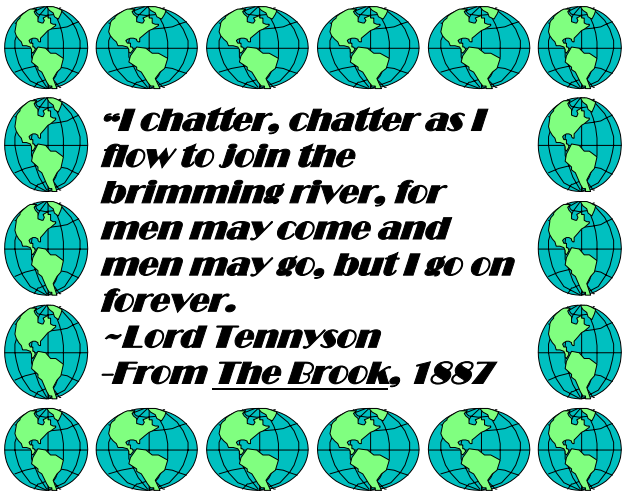
The purpose of the Management Guidelines is to raise the level of performance of onsite/decentralized wastewater systems through improved management programs. The Guidelines will establish minimum levels of management activities and result in assisting

communities in meeting water-quality and public health goals. Although the program is voluntary, EPA is recommending that a basic level of onsite systems management (eg., system inventory and awareness of maintenance needs) be implemented by all states and that higher levels of management (eg., maintenance contracts, operating permits, management entity operation and maintenance) be implemented locally where there is a high risk of environmental degradation or a threat to public health through onsite systems usage.

The Management Guidelines are a set of recommended practices needed to raise the level of performance of onsite/decentralized wastewater systems through improved management programs. Five separate "model programs" are presented as a progressive series, with management requirements becoming more rigorous as the system technologies become more complex or as the sensitivity of the environment increases. Each model program includes program elements and program activities needed to achieve the management objectives.

EPA recognizes that states, tribes, and local governments need a flexible framework and guidance to best tailor their management programs to the specific needs of the community. These model programs are not intended to supercede existing federal, state, tribal, and local laws and regulations but rather be a complement to them.

The Management Guidelines will be published in 2002. More information on the Management Guidelines can be acquired at **http://www.epa.gov/owm/decent/** or by contacting **Rich Muza** at (303) 312-6595 or **muza.richard@epa.gov**




## *Ecological Assessment - What It Is*

**~Karl Hermann and Eric Hyatt, EPA Region 8**

Ecological assessment is the process of determining and reporting ecological status, condition, and trends, as well as, the factors that influence condition or may influence the future condition. It is the first of two components in the ecosystem approach, the second being ecosystem management opportunities.

Focused on ensuring a sustainable economy and sustainable environment, the ecosystem approach attempts to gain a comprehensive understanding of ecosystems, how we use them, what factors affect them, and finally, optimal management and stewardship. A successful ecological assessment process provides relevant information to a variety of stakeholders that empowers them with an understanding of the existing state (condition) of the environment and the abilities to make effective ecosystem management decisions.

There is an interrelationship between ecological systems and sustainable economies. An appropriate ecological assessment process employs the best available information and sound science to gain an understanding of the multidimensional aspects of natural systems and anthropogenic (human induced) stresses on those systems.

There are a couple of key elements for successful assessments. First, a necessary holistic style approach requires expertise from a number of disciplines. Therefore partnerships with other agencies and entities, are highly desirable and perhaps critical for success. Secondly, no matter how good the analysis and interpretation in the assessment process, without effective communication of relevant information to the stakeholders for the practice of ecosystem management, the value is lost.

**Ecological Indicators**

Ideally, the ecological assessment process is iterative. In this way, trends can be monitored and *adaptive* management can be effectively practiced. In order to accomplish this, a primary assessment tool set is the employment of *ecological indicators*. Designed properly, indicators can be associated with assessment and/or measurement endpoints and can provide status information with respect to that issue(s). The amount or percent of resource in a given area is an example of an indicator. A direct measure is a measurement endpoint and an indirect measurement is an assessment endpoint. Monitored over time, the indicator may show loss or gain of the resource. Understanding the ecosystem dynamics, the loss of a particular resource may imply loss of a

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habitat, etc. Likewise, stressor indicators can show increase or decrease of a particular ecological stress over time (e.g., impact of anthropogenic (man made) nitrogen releases over time).

**Employing Ecological Assessment in EPA Region 8**
EPA Region 8 is promoting an ecological assessment framework to employ as 'the way it does business'. The framework provides a logical approach to identify issues, develop assessment goals and questions to be answered, analyze and interpret information, and to effectively report the findings to relevant stakeholders. Currently, several Region 8 projects incorporate the framework. Future plans for broader use include the upcoming Regional State of the Environment Report.

For more information please contact **Karl Hermann** at or 303-312-6628 or **hermann.karl@epa.gov**

## *10th National Nonpoint Source Monitoring Workshop: Monitoring and Modeling from the Peaks to the Prairies*

**~Contributed by Kim Larson, EPA Region 8**

**September 8-12, 2002, Beaver Run Resort, Breckenridge, Colorado**
**Overview**
This year's workshop offers a great opportunity to share accomplishments and ideas in nonpoint source (NPS) monitoring and modeling in a beautiful setting, *autumn in the Rockies*. The focus will be on the outcomes of Section 319 National Monitoring Program projects and similar innovative efforts.

The agenda includes three days of technical sessions and presentations. A one-day field trip will feature stream restoration and legacy mines along with other local technical tours.

**Session Topics**
•Stream Restoration
•Inactive Mine Remediation
•NPS Modeling
•Best Management Practices Implementation (BMP) and Evaluation in Agriculture, Silviculture and Urban/Construction
•Total Maximum Daily Load (TMDL) Development
•Public Information and Education

**Questions?**
Please contact **Tammy Taylor** at **taylor@ctic.purdue.edu** or (765) 494-1814.

*"To trace the history of a river or a raindrop...is also to trace the history of the soul, the history of the mind descending and arising in the body. In both, we constantly seek and stumble upon divinity, which like feeding the lake, and the spring becoming a waterfall, feeds, spills, falls, and feeds itself all over again."*
*~Gretel Ehrlich-From Islands, The Universe, Home, 1991*

## *Web Highlights*

**~Contributed by Stacey Eriksen, EPA Region 8**

You **gotta** check out this web site "Watershed Weekly" which features Videos that highlight the work of Local Watershed organizations, as well as a video on how to start a WS organization, and other cool stuff...
**http://www.greenworks.tv/watershed_weekly/index.htm**

River Network, helping people understand, protect and restore rivers and their watersheds.
**http://www.rivernetwork.org**

The new EPA Watershed web site is at:
**http://www.epa.gov/owow/watershed/**

Environmental information about your neighborhood is just a few clicks away using **Envirofacts** data "warehouse" that offers a single point of access to a wide range of environmental data collected by EPA. Users can search by facility name, geographic location, ZIP code, or Standard Industrial Code classification. **Enviromapper** generates maps using data from Envirofacts. **http://www.epa.gov/enviro**

The award-winning **Window to My Environment** combines state-of-the-art interactive maps with links to federal, state and local environmental data to provide users with detailed information on environmental issues and conditions affecting their community or location of interest. Users enter a ZIP code or city and state to receive information. **Window** is currently available in Regions 3, 5, 6, and 8, and will be expanded nationwide by the end of FY 2002.
**http://www.epa.gov/enviro/wme**

**Six new TMDL fact sheets** focusing on water quality have been added to the NACD (National Association of Conservation Districts )Web site at **http://www.nacdnet.org/govtaff/tmdl/FactSheets.htm** The fact sheets, produced as part of a cooperative project with EPA, include the following topics: **319 grants, constructed wetlands, market-driven approaches to conservation, leveraging funds, a unified national animal feeding operation strategy and the Clean Water State Revolving Fund.**

The Pew Oceans Commission's new release "Coastal Sprawl: The Effects of Urban Design on Aquatic Ecosystems in the United States," links sprawl to declining coastal health. The report is available at **http://www.pewoceans.org/**

The Brookings Institution's Center on Urban and Metropolitan Policy has compiled a report on **"Open Space Protection: Conservation Meets Growth Management."** The report provides an overview of the nature, quantity and objectives of open space programs in the U.S. and, using existing literature, examines how they may affect the shape and form of metropolitan areas. The report can be viewed at **http://www.brookings.edu/urban**

New web site dedicated to Low Impact Development. **http://www.lid-stormwater.net/**

GreenBiz.com, a program of the National Environmental Education & Training Foundation, announces key new partnerships with leading environmental and business groups. The goal is to produce free, content-rich Web sites to help mainstream companies align environmental responsibility with business success. **http://www.greenbiz.com**

## Coal Bed Methane in EPA Region 8

**~Ayn Schmit, EPA Region 8**

There are a number of current activities ongoing in the Region 8 office pertaining to coal bed methane (CBM) development. The following are updates on a few key activities.

**EPA's "Economic Impact Analysis of Disposal Options for Produced Water from Coalbed Methane Operations", aka the "best professional judgement" analysis**

An EPA contractor is conducting this analysis to support EPA and states in determining appropriate permit limits for the discharge of water produced from coal bed methane development. The analysis will look at the cost and feasibility of a variety of different options for managing CBM produced water, including injection, impoundment, and treatment by reverse osmosis. The current schedule calls for the release of a draft report in August-September, with a public meeting to be held in the Powder River Basin to facilitate public input on the draft document. EPA hopes the document can be finalized by December 2002. For more information please contact **Mike Reed** at 303-312-6132 or **reed.mike@epa.gov**

**Cheyenne Tribal Water Quality Standards**

EPA Region 8 has been working with the Northern Cheyenne Tribe for some time to assist the Tribe in its development of water quality standards. The Tribe proposed standards in late 2001, and held a public hearing in January 2002 to take comment on their proposed standards. Recently the Tribe submitted an application to EPA for "Treatment as a State" under the Clean Water Act. A tribe must be approved for Treatment as a State prior to submitting water quality standards to EPA for approval as Clean Water Act standards. The Tribe has been responding to the public comment they received, and is preparing to take their final standards back to their Tribal Council for adoption in the very near future. Once adopted by the Council, the standards will be submitted to EPA for review and approval. For more information, please contact **Barb Burkland** at (406) 457-5009 or **burkland.barbara@epa.gov**

**EPA Comments on the Wyoming and Montana Draft Environmental Impact Statements for Coal Bed Methane Development in the Powder River Basin**

EPA provided comments to the Bureau of Land Management on their Draft EISs for coal bed methane development. To view EPA's comment letters, see our website at: **http://www.epa.gov/region8/compliance/nepa/nepadocs/nepadocs.html**

***Off-channel reservoir for coal bed methane development near lower Prairie Dog Creek, Powder River Basin, Wyoming***

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EPA Region 8 Environmental Information Service Center and toll free number
1-800-227-8917

**Natural News**

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If you have an article concerning ecosystem protection, community based environmental protection, or watersheds; we would like to hear from you! Please contact: Stacey Eriksen (303) 312-6692 or **eriksen.stacey@epa.gov**

**We need your help in updating our mailing list in order to keep Natural News coming to you! Please contact: John DiPentino (303) 312-6594 or dipentino.john@epa.gov or snail mail to him at the return address below**

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Ecosystem Stewardship on the web: **http://www.epa.gov/region8/community_resources/steward/est.html**

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